



Standard Practice for An Object-Oriented Model for Registration, Admitting, Discharge, and Transfer (RADT) Functions in Computer- Based Patient Record Systems¹

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1. Scope

1.1 This practice is intended to amplify Practice E1239 and to complement Practice E1384 by detailing the objects that make up the reservation, registration, admitting, discharge, and transfer (RADT) functional domain of the computer-based record of care (CPR). As identified in Practice E1239, this domain is seminal to all patient record and ancillary system functions, including messaging functions used in telecommunications. For example, it is applicable to clinical laboratory information management systems, pharmacy information management systems, and radiology, or other image management, information management systems. The object model terminology is used to be compatible with other national and international standards for healthcare data and information systems engineering or telecommunications standards applied to healthcare data or systems. This practice is intended for those familiar with modeling concepts, system design, and implementation. It is not intended for the general computer user or as an initial introduction to the concepts.

2. Referenced Documents

2.1 ASTM Standards:²

E1238 Specification for Transferring Clinical Observations Between Independent Computer Systems (Withdrawn 2002)³

E1239 Practice for Description of Reservation/Registration-Admission, Discharge, Transfer (RADT) Systems for Electronic Health Record (EHR) Systems

E1384 Practice for Content and Structure of the Electronic Health Record (EHR)

E1633 Specification for Coded Values Used in the Electronic Health Record

E1639 Guide for Functional Requirements of Clinical Laboratory Information Management Systems (Withdrawn 2002)³

E1744 Practice for View of Emergency Medical Care in the Electronic Health Record

F1629 Guide for Establishing Operating Emergency Medical Services and Management Information Systems, or Both

2.2 ANSI Standard:

ANSI X3.172 Dictionary of Information Systems⁴

2.3 IEEE Standard:

IEEE 1157.1 Trial Use Standard for Healthcare Information Interchange—Information Modelling (6 June 1994)⁵

2.4 Other Document:

HL-7 v2.4 Data Communication Standard⁶

3. Terminology

3.1 *Definitions*—General terms are defined in accordance with ANSI X3.172.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *functional domain, n*—that area of activity that encompasses a given function. (HL-7, v2.4)

3.2.2 *healthcare domain, n*—that functional domain encompassing all aspects of the delivery of health care, both preventive and corrective, to patients, and the management of resources enabling that care to be delivered. (HL-7, v2.4)

4. Background

4.1 *Object Representation of RADT Processes*—Practice E1239 provides the experiential background of the functions in RADT. These functions are common to all systems that deal with patient data. The minimal essential data elements for

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁵ Available from Institute of Electrical and Electronics Engineers, Inc. (IEEE), 445 Hoes Ln., P.O. Box 1331, Piscataway, NJ 08854-1331, <http://www.ieee.org>.

⁶ Available from Health Level Seven, 900 Victors Way, Suite 122, Ann Arbor, MI 48108.